Remarks

Status

Claims 78-109 were pending in the application. The Examiner rejected all of the pending claims for the reasons defined in the Office Action and summarized below. Claims 78-90 and 102-106 have been canceled without prejudice or disclaimer to the subject matter contained therein. Claims 110-113 have been added. After entry of the amendment claims 91-101 and 107-113 are pending. Claims 91, 98, 107 and 110 are the independent claims.

Discussion

The Examiner rejected claims 78-89, 102, 104, 106 and 107 under 35 U.S.C. §102(e) as being anticipated by *Alexander et al. (U.S.P. 6,177,931* – it appears that the Office Action erroneously indicates the patent number as 6,160,570*)*. The Examiner rejected claims 90-101, 103, 105, 108 and 109 under 35 U.S.C. §103(a) as being unpatentable over *Alexander et al.* in view of *Sitnik (U.S.P 6,160,570)*. The Applicant submits that all of the pending claims are patentable over the cited references. However in order to expedite prosecution of the application, the Applicant has canceled claims 78-90 and 102-106 without prejudice or disclaimer to the subject matter contained therein. Claims 110-113 have been added. It is submitted that claims 91-101 and 107-113 are patentable over the cited references for at least the following reasons.

Claim 91 is directed to a method for generating a subscriber profile for a subscriber of television services. The method includes monitoring subscriber interactions with a television. Heuristic rules associated with at least some subset of the subscriber interactions are retrieved. The heuristic rules predict demographic characteristics about the subscriber including at least some subset of gender and income level. The heuristic rules are applied to the at least some subset of the subscriber interactions to generate the subscriber profile.

The applicant submits that neither *Alexander et al.* nor *Sitnik* disclose, teach or suggest the method of claim 91. For example, neither reference disclose, teach or suggest retrieving heuristic rules associated with subscriber interactions that predict demographic characteristics

Amendment   -8-   09/204,888

about the subscriber (e.g., gender, income level) or applying the heuristic rules to the subscriber interactions to generate a subscriber profile.

As defined in the application, the heuristic rules may be logical rules or may be rules expressed in terms of conditional probabilities (page 11, lines 27-29). Fig 10A and the associated text from page 21, line 12 – page 22, line 1 illustrate and describe exemplary logical heuristic rules. For example, the heuristic rules equate an individual watching the soap opera "Days of our lives" with a housewife (1050). The heuristic rules also equate higher frequency of channel changes to higher income, as illustrated a user who zaps once every 2 minutes and 42 seconds is associated with an income of greater than $75,000 (1010). Fig. 10B and the associated text from page 22, line 2 – page 22, line 10 illustrate and describe exemplary probabilistic heuristic rules. The exemplary heuristic rules define probabilities of demographic make-up of a user based on the category of programming they are viewing. For example, the heuristic rules assign an individual watching the news a 40% probability of being over the age of 70, a 40% probability of making between $50K - $100K, a 50% of being a single member family, and a 70% chance of being female. It is clear that the exemplary heuristic rules described in the application are related to viewing characteristics (i.e., watching soap opera, watching the news) and predict traits that are not related thereto (i.e., housewife, 40% probability of income between $50K - $100K).

On pages 5 and 6 of the Office Action, the Examiner contends that *Alexander et al.* discloses all of the elements except the heuristic rules that predict demographic characteristics about the subscriber including at least some subset of gender and income level that she acknowledges *Alexander et al.* do not disclose. The Examiner appears to be relying on *Sitnik* for disclosing this element. Even assuming that the Examiners contention regarding *Alexander et al.* disclosing many of the features of the claimed embodiment is correct (without conceding or acknowledging such) and that there is motivation to combine the references (without conceding or acknowledging such), the Applicant submits that the Examiner's contention regarding *Sitnik* disclosing this element is clearly erroneous.

The Examiner states that *Sitnik* "teaches to include collecting viewer profiles further including the user's sex or gender, the yearly income level, personal preferences, and personal

habits (col. 1/line 58 to col. 2/line 4 for an example of appropriate images and programs to children under the age of thirteen; Fig. 3, and col. 7/line 40-57 & col. 8/line 53 to col. 9/line 4)". Initially the Applicant points out that what the Examiner contends that *Sitnik* teaches has nothing to do with heuristic rules that predict demographic characteristics about the subscriber including at least some subset of gender and income level, as required by claim 91. That is, the Examiner's contention appears to simply be that *Sitnik* collects viewer user data (e.g., sex, gender, income). The Examiner does not appear to assert that *Sitnik* retrieves heuristic rules, let alone heuristic rules predict demographic characteristics about the subscriber including at least some subset of gender and income level, or applying the heuristic rules to subscriber interactions to generate a subscriber profile.

Moreover, the Applicant submits that *Sitnik* does not disclose, teach or suggest heuristic rules, or applying the rules to generate a subscriber profile. While *Sitnik* may disclose a user profile that includes demographic information, it clearly does not disclose that heuristic rules were used to generate the demographic information. *Sitnik* discloses that the user profile may include the user's zip code, telephone area code, neighborhood and country (col. 3, lines 51-54) which would likely be entered by the user and could be used to gather demographic data. In fact, *Sitnik* discloses that the user profile may be determined using an on-screen questionnaire. There is clearly no disclosure or suggestion that demographic data in the user profile would be generated by application of heuristic rules. *Sitnik* simply discloses that it is possible to generate user viewing habits and preferences by monitoring programming displayed.

The col. 8/9 passage referred to by the Examiner simply discloses that images may be selected to present to the viewer based on the viewer profile and has nothing to do with generating the profile, let alone generating the profile based on heuristic rules, or heuristic rules that predict demographic characteristics about the subscriber including at least some subset of gender and income level, as required by claim 91.

As *Sitnik* clearly does not disclose the deficiencies in *Alexander et al.* that the Examiner has acknowledged, the combination does not result in the embodiment recited in claim 91. As such, the Applicant submits that claim 91 is clearly patentable over the cited references for at least the above noted reasons. Claims 92-97 depend from claim 91 are therefore submitted to be

Amendment   -10-   09/204,888

patentable over the cited references for at least the reasons discussed above with respect to claim 91 and for the further features recited therein.

For example claim 95, recites that the heuristic rules associate subscriber interactions to non-interaction traits including at least some subset of program to gender, channel change speed to gender, channel change speed to income level, program genre to age, program genre to gender, program genre to income level, and program genre to family size. The Applicant submits that the neither *Alexander et al.*, *Sitnik* nor any reasonable combination disclose, teach or suggest the interaction to non-interaction trait associations of claim 95. In fact the Applicant submits that the Examiners rejection of claims 95-97 on pages 6 and 7 of the Office Action do not address the interaction to non-interaction trait associations of claim 95. Rather the passages referred to by the Examiner simply point on interactions the subscriber may make and details that may be obtained about the subscriber, and does not provide any evidence as to whether the details about the subscriber were generated from the interactions, and if they are generated from the interactions how they are generated. The Examiner has not provided any evidence of the use of heuristic rules, let alone the use of heuristic rules that associate at least some subset of program to gender, channel change speed to gender, channel change speed to income level, program genre to age, program genre to gender, program genre to income level, and program genre to family size. Claim 95 is submitted to be patentable over the cited art for at least this additional reason.

The Applicant respectfully submits that the rejections of claims 91-97 have been overcome and that the rejection should according be withdrawn.

Claim 98 is directed to a method for generating a subscriber profile. The method includes monitoring subscriber interactions with a television; processing the subscriber interactions to generate interaction traits; retrieving heuristic rules associated with the interaction traits, wherein the heuristic rules associate the interaction traits to demographic traits, the interaction traits to demographic traits associations including at least some subset of program to gender, channel change speed to gender, channel change speed to income level, program genre to age, program genre to gender, program genre to income level, and program genre to family size; and generating the subscriber profile by applying the heuristic rules to the interaction traits.

Amendment   -11-   09/204,888

The applicant submits that neither *Alexander et al.* nor *Sitnik* disclose, teach or suggest the method of claim 98. For example, neither *Alexander et al.* nor *Sitnik* disclose, teach or suggest retrieving heuristic rules associating interaction traits to demographic traits (e.g., channel change speed to gender, channel change speed to income level) about the subscriber or applying the heuristic rules to the subscriber interactions to generate a subscriber profile. The Applicant submits that claim 98 is patentable over the cited references for at least reasons similar to those described above with respect to claims 91 and 95. Claims 99-101 depend from claim 98 are therefore submitted to be patentable over the cited references for at least the reasons discussed above with respect to claim 98 and for the further features recited therein.

Claim 107 is directed to a method for generating a demographic profile of a subscriber based on subscriber interactions with a television. The method includes monitoring subscriber interactions with a television; retrieving heuristic rules associated with the subscriber interaction, wherein the heuristic rules associate the subscriber interactions with probabilities of the subscriber having certain demographic traits; applying the heuristic rules to the subscriber interactions to generate probabilistic demographic traits based on the subscriber interactions; and generating a demographic profile of the subscriber by aggregating all the probabilistic demographic traits for various subscriber interactions.

The applicant submits that neither *Alexander et al.* nor *Sitnik* disclose, teach or suggest the method of claim 107. For example, neither *Alexander et al.* nor *Sitnik* disclose, teach or suggest heuristic rules that associate subscriber interactions with probabilities of the subscriber having certain demographic traits; applying the heuristic rules to the subscriber interactions to generate probabilistic demographic traits based on the subscriber interactions; or generating a demographic profile of the subscriber by aggregating all the probabilistic demographic traits for various subscriber interactions.

The Examiner has provided no evidence that either of the references disclose heuristic rules associating interactions with probabilistic demographic traits; generating probabilistic demographic traits therefrom, or generating a demographic profile by aggregating all the probabilistic demographic traits. In fact the Examiner simply refers to other rejections and does

Amendment   -12-   09/204,888

not account for these features of claim 107. Moreover, the Applicant submits that there is no disclosure, teaching or suggestion in the references of these features.

Accordingly, the Applicant submits that claim 107 is clearly patentable over the cited references for at least the above noted reasons. Claims 108 and 109 depend from claim 107 are therefore submitted to be patentable over the cited references for at least the reasons discussed above with respect to claim 107 and for the further features recited therein.

Newly added claim 110 is directed to a method for generating a demographic profile of a subscriber based on subscriber interactions with a television. The method includes monitoring subscriber television viewing interactions; processing the subscriber television viewing interactions to generate subscriber television viewing characteristics; retrieving heuristic rules associated with at least some subset of the subscriber television viewing characteristics, wherein the heuristic rules associate television viewing characteristics with probabilistic demographic characteristics; and applying the heuristic rules to the at least some subset of the subscriber television viewing characteristics to generate a probabilistic demographic profile.
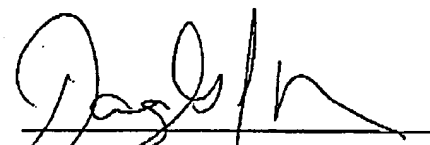
The applicant submits that neither *Alexander et al.* nor *Sitnik* disclose, teach or suggest the method of claim 110. For example, neither *Alexander et al.* nor *Sitnik* disclose, teach or suggest heuristic rules that associate subscriber interactions with probabilistic demographic characteristics; applying the heuristic rules to the subscriber interactions to generate probabilistic demographic profile. For reasons at least similar to those advanced above with respect to claim 107, the Applicant submits that claim 110 is clearly patentable over the cited references for at least the above noted reasons. Claims 111-113 depend from claim 110 are therefore submitted to be patentable over the cited references for at least the reasons discussed above with respect to claim 110 and for the further features recited therein.

Amendment   -13-   09/204,888

Conclusion

For the foregoing reasons, Applicant respectfully submits that claims 91-101, 107-113 are in condition for allowance. Accordingly, early allowance of claims 91-101, 107-113 is earnestly solicited.

If the Examiner believes that a conference would be of value in expediting the prosecution of this Application, the Examiner is hereby invited to contact the undersigned attorney to set up such a conference.

Respectfully submitted,

Date: 7/2/04

Douglas J. Ryder, Esquire
Reg. No. 43,073

6206 Kellers Church Road
Pipersville, PA 18947
Phone: (215) 766-2100
Fax: (215) 766-2920
dryder@techpats.com

Amendment   -14-   09/204,888